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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,334	02/06/2006	Volker Kirschner	016906-0458	9381
22428 7590 04/14/2010 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007				
EXAMINER				
CIRIC, LJILJANA V				
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3744				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/567,334

**Applicant(s)**

KIRSCHNER ET AL.

**Examiner**

Ljiljana (Lil) V. Ciric

**Art Unit**

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-20 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is in response to the reply filed on December 16, 2009.
2. Claims 6 through 20 remain in the application, of which claims 6 through 10 remain withdrawn from consideration as noted in greater detail below and of which claims 11 through 20 are new.

### ***Response to Arguments***

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection necessitated by amendment and presented herein.

### ***Election/Restrictions***

1. Claims 6 through 10 hereby remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 29, 2009.

### ***Drawings***

2. The replacement drawings were received on December 16, 2009. These drawings are hereby objected to as noted in greater detail below.
3. The drawings filed on December 16, 2009 are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the features canceled from the claims: a temperature sensor that measures a temperature of the heat exchange medium downstream of the heater (i.e., a temperature sensor that is downstream of the heater 3) as newly recited in claims 16 and 17. Note that Replacement Sheet I/1 shows a temperature sensor 8 that is ON the heater 3, and NOT downstream of heater 3 (i.e., downstream of heater 3 being on the heavy black arrow between heater 3 and throttle member 4/expansion valve 5); this location for the temperature sensor 8 constitutes new matter for which there is no support in the originally filed disclosure. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

4. The amended abstract of the disclosure is objected to because it still does not avoid phrases which can be implied (i.e., "The invention relates to"). Correction is required. See MPEP § 608.01(b).
5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

#### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 11 through 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are also still generally narrative and indefinite, as well as written in a run-on fashion, thus failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are contain grammatical and idiomatic errors.

For example, it is not clear as written whether the term "which" in line 1 of base claim 11 is intended to refer to the previously recited motor vehicle or to the previously recited air-conditioning system. Recommend replacing "which" with ", said air-conditioning system", for example, as appropriate.

Also, with regard to base claim 11 as written, it is not clear to which particular pressure (of the refrigerant being compressed by the compressor? Of some other fluid?) the limitation "a pressure" is intended to refer. Claim 13 is similarly unclear because it also refers to the limitation "the measured pressure downstream of the compressor

In particular, with regard to base claim 11 and claims 12 through 20 depending therefrom, it is still not clear which elements if any are being positively recited. For example, it is not clear whether or not claim 12 is intended to positively recite a heat exchange medium flowing through the heat pump circuit.

There is no antecedent basis in the claims for the following limitations in the claims, for example: "a pilot control characteristic curve of a desired high-pressure value and the measured pressure downstream of the compressor" [claim 13, lines 3-4]; "the heat exchange medium downstream of the heater" [claim 16, lines 2-3; note that claim 12 from which claim 16 depends is not clearly understood as positively reciting a heat exchange medium]; "a desired temperature of the heat exchange medium

downstream of the heater" [claim 17, lines 2-3; claim 18, line 3]; "a correcting characteristic" [claim 17, line 4]; and, "a pilot control characteristic curve of a desired high-pressure value" [claim 18, line 4].

Furthermore, it is not clear what is encompassed by the limitations "a desired high-pressure value" [claim 13, line 3], "a correcting characteristic" [claim 17, line 4], and "a pilot control characteristic" [claim 18, line 4], thereby rendering indefinite the metes and bounds of protection sought by the claims.

Also, both claim 13 and claim 14 depending therefrom recite "a high-pressure regulator" but it is not clear whether the recitation in claim 13 and the one in claim 14 refer to the same element or to two different elements, thus further rendering indefinite the metes and bounds of protection sought by the claims.

*Claim Rejections - 35 USC § 102*

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. As best can be understood in view of the indefiniteness of the claims, claims 11 through 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ozaki et al. (U.S. Patent No. 6,044,655).

Ozaki et al. discloses a vehicular heat pump or air conditioning system essentially as claimed, including, for example: a variable stroke/two-stage compressor 1; a heater or heat emitter 2; an evaporator 7; a controllable pressure reducer or expansion valve 3 that follows the heater 2 and precedes the evaporator 7; a pressure sensor 18 that measures a pressure downstream of the compressor 1; a regulator or controller 10; and, a temperature sensor 17 that measures a temperature of the heat exchange medium or carbon dioxide downstream of the heater or heat emitter 2.

The reference thus reads on the claims.

***Conclusion***

10. The additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner works a flexible work schedule but can normally be reached on most days during the work week between the hours of 10:30 a.m. and 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ljiljana (Lil) V. Ciric/  
Primary Examiner, Art Unit 3744